

REMARKS

The last Office Action has been carefully considered.

It is noted that claims 1-6 are rejected under 35 U.S.C. 103 over the patent to Boyd in view of the patent to Ewing.

Also, the specification is objected to and the claims are rejected under 35 U.S.C. 112.

In connection with the Examiner's formal objections and rejections, applicant first of all amended the specification to bring it in compliance with the requirements of the U.S. Patent Practice and provided a new Abstract of the Disclosure.

After carefully considering the Examiner's grounds for the rejection of the claims over the art, the claims have been canceled and replaced with a new set of claims including claim 7, the broadest claim on file, and claims 8-10 which depend on it.

Claim 7, the broadest claim on file, specifically defines in addition to the original features, that the windings 28 constitute a main winding and the windings 44 constitute an auxiliary winding, the both

windings 28 and 44 of a phase are connected electrically parallel to one another and all windings are connected in a single central point of a star-shaped arrangement. While the last feature was not described in the original specification, it is clearly shown in Figure 4. In order to provide an antecedent basis for the amended claim 7, the specification has been amended as well.

Turning now to the references and particularly to the patent to Boyd, it can be seen that this reference relates to an electronically commutated motor and a method of operating the same. The reference does not disclose a parallel connection of the individual windings of the phase. The windings S1, ...are windings of separate phases. The individual windings S1A, S1B and S1C within one phase are connected in series, as shown in Figures 2, 4, and 6a. The same arrangement is provided in the patent to Ewing, as shown in Figure 10. A common center point of a star-shaped configuration is not disclosed in any of the references.

The patent to Auinger I (4,127,787) discloses a complex three-phase winding system which is shown in Figure 1 and composed of at least three partial three field systems. The coils of the corresponding partial three field system are connected with their ends E in a center point of a star, to which in a partial pre-filled system one coil N - - is connected and which are connected to the partial pre-filled systems in series, as disclosed in column

5, starting from lines 18 FF. In the applicant's invention, per one phase of the pre-filed system, one additional coil is provided. It is to be clear that this reference also does not teach the new features of present invention.

The U.S. patent to Auinger II (4,284,919) discloses a similar construction as in U.S. patent no. 4,127,787. It also does not teach the new features of present invention.

A combination of the patents to Boyd and Ewing would not lead to the applicant's invention. A combination of U.S. patent no. 4,528,485 of the patent to Boyd with U.S. patent no 4,541,854 to Uskioski will also not lead to the applicant's invention. In the U.S. patent to Boyd an electrical machine is disclosed in Figure 2, in which two different voltages are provided, which is however not possible in the patent to Uskioski. First in the reference a motor with a swivel-cage rotor is provided. Because of different switching possibilities of the switches S11-S23, during the motor operation always the same voltage of the individual phases L1, L2 and L3 is provided through the windings identified as resistors R11-R33. A hypothetical utilization of this motor as a generator would be provided for even winding numbers and uneven winding numbers (column 2, starting from line 32). With even winding numbers even input voltages are obtained, which is not provided in the applicant's invention in the main claim. With uneven winding numbers (R11, R12, R13) in the individual windings R11, R12, R13, different

voltages are obtained, which because of the preswitching to equalizing currents between the individual windings R11, R12, R13 would lead to a very disadvantages additional loading of the windings with additional power loss and heat loss. The inner losses of the generator increase, the efficiency decreases, and finally only a voltage is provided at the switch S11. A transmission of the stator features of this motor is wrong.

It is believed that the new features of present invention which are now defined in claims 7, the broadest claim on file, are not disclosed in the references and can not be derived from them.

It is believed that the decision of the Board of Appeals and Patent Interferences of the U.S. Patent and Trademark Office decided in ex parte Thompson 184 US PQ 558, that:

"The claims are not rejected under 35 U.S.C. 103 since it would not be obvious to substitute element of first reference for element of second reference, since to do so would destroy apparatus of second reference for its intended purposes"

Furthermore, it is believed that another decision of the Board of Appeals in ex part Weber, 154 USPQ 491 is also relevant, when the Board stated that a rejection on obviousness can not be upheld since:

"Rearrangement of prior machine so alter its construction and mode of operation that it would not function in its intended manner;

obviousness of proposed changes is not derived from cited art but from applicant's disclosure."

The modification of the reference is actually similar to the changes indicated in the above cited decision.

Also, it is respectfully submitted that the present invention as defined in claims 7 provides for highly advantageous results which can not be accomplished by the solution proposed in the references. It is well known that in order to support a valid rejection the art must also suggest that it would accomplish applicant's results. This was stated by the Patent Office Board of Appeals, in the case Ex parte Tanaka, Marushima and Takahashi (174 USPQ 38), as follows:

Claims are not rejected on the ground that it would be obvious to one of ordinary skill in the art to rewire prior art devices in order to accomplish applicants' result, since there is no suggestion in prior art that such a result could be accomplished by so modifying prior art devices.

In view of the above presented remarks and amendments, it is believed that claim 7 together with dependent claims should be considered as patentably distinguishing over the art and should be allowed.

Reconsideration and allowance of present application is most respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place this case in condition for final allowance, then it is respectfully requested that such amendments or corrections be carried out by Examiner's Amendment, and the case be passed to issue. Any costs involved should be charged to the deposit account of the undersigned (No. 19-4675). Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, he is invited to telephone the undersigned (at 631-549-4700).

Respectfully submitted,



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